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# The Question–Answer Paradigm: You Might Regret Not Noticing How a Question Is Worded

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In 2 experiments the authors investigated how verb choice in question formulation influences respondents' answers. These studies show that (a) as hypothesized, the choice of verb type (action vs. state) in forming a question influences interviewees' narratives systematically by impacting, inter alia, which individual is implicitly described as the causal originator of a social event; (b) interviewees are not aware of how their answers are manipulated; and (c) others who listen to or read the very same answers are sensitive to the linguistic differences in the narratives that are shaped by verb choices in question formulation. The implications of these findings for the self-fulfilling prophecy are discussed.

How one answers questions can have dramatic consequences. It can make a difference between getting or losing a job, being convicted or released, and being trusted or distrusted. Obviously, the way one asks questions is also crucial and can have similar existential implications, such as making the difference between getting married or being dumped or between going out on a date or picking daisies. In two studies, we investigated how answers are shaped by the verbs used in forming the questions. This issue gives rise to three interrelated questions that we address here: (a) Are respondents' answers influenced by the types of predicates (verbs) that are used in question formulation? (b) If so, are respondents aware of this influence? (c) Moreover, do third parties detect the influence of question formulation on the answers when they read or listen to the answers? The match or mismatch between respondents' and third parties' perceptions clearly also becomes a critical issue, because the implications of mismatches can be far reaching.

The research paradigm that we used to investigate these questions is the question–answer paradigm (QAP; Semin, Rubini, & Fiedler, 1995). The core theme of the QAP is that there are systematic differences in the way in which people answer two questions that are similar on the surface but differ in terms of the type of verb used in formulating the question. Consider the questions "Why do you *like* the Washington Post?" and "Why do you *read* the Washington Post?" Both questions may appear to be requests to explain one's newspaper preference. If, however, the different verbs used in these two questions lead to answers that differ systematically in terms of how the explanation is grounded, then one would conclude that the choice of verb influences answers.

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The unusual outcome of the QAP is a systematic influence of verb choice in question formulation upon the shaping of answers (Semin et al., 1995). Researchers have shown that verbs of action (e.g., *help, cheat, push*) and verbs of state (e.g., *respect, dislike, love;* cf. Semin & Fiedler, 1988, 1991) structure answers differently depending on which is used in formulating a question. Such interpersonal verbs have been shown to mediate a number of systematic inferences (Semin & Fiedler, 1988, 1991; Semin & Marsman, 1994). The most relevant inference in the context of the QAP is who initiates an event. Indeed, this is probably the most widely researched aspect of interpersonal verbs (e.g., Abelson & Kanouse, 1966; Au, 1986; Brown & Fish, 1983; Fiedler & Semin, 1988; Semin & Marsman, 1994). When asked to identify who initiated an event described in a simple subject–verb–object sentence constructed with an action verb (e.g., "John helped David"), participants predominantly identify the sentence subject (John). In contrast, for sentences with state verbs ("John likes David"), the same question leads to sentence object inferences (David). This particular inference pattern about event initiation is better known as the causality implicit in interpersonal verbs (cf. Brown & Fish, 1983; Fiedler & Semin, 1988; Garvey & Caramazza, 1974; Garvey, Caramazza, & Yates, 1976; Hoffman & Tchir, 1990; Semin & Marsman, 1994).

Semin et al. (1995) put this particular property of action and state verbs into use in a question–answer context. They found in two independent studies that questions formulated with action verbs cued the logical subject of a question sentence as the causal origin for answers (e.g., "I read the Tribune because *I* . . ."). They found the reverse tendency for questions formulated with state verbs. In answers to these questions, the logical object of the question was found to be the causal origin (e.g., "I like the *Tribune* because *it* . . ."). These findings have been generalized with a larger set of interpersonal verbs by De Poot and Semin (1995), whereby special care was taken to ascertain the semantic similarity of the verbs used in formulating alternative questions.

Further, these experiments have shown not only that the verb type in question formulation (action vs. state) influences who

is described as the causal originator of the event but also that the descriptions participants provide vary in terms of the predicates used. Questions with action verbs elicit narratives that contain more concrete predicates than do narratives generated by questions formulated with state verbs. We know from earlier research (Lee & Kasoff, 1992; Maass, Salvi, Arcuri, & Semin, 1989; Semin & Fiedler, 1991, 1992) that concrete and abstract interpersonal predicates lead to systematically different influences about the likelihood of occurrence of an event, the stability of the relationship between the protagonists depicted by such predicates, and the duration of the interpersonal event, among other aspects. This research has shown that more abstract predicates lead to the perception that a behavior or social event (a) is more likely to recur in the future, (b) refers to a more stable relationship between the protagonists depicted in the event, and (c) has lasted for a longer period.

## Study 1

The question we addressed in Study 1 was whether there are systematic differences in the manner in which participants perceive a recalled event as a function of the type of verb used to generate the answers (i.e., narratives of such events). In other words, does the verb type used in question formulation influence a respondent's representation of an event? These differences in perception were assessed on a number of attributional dimensions that are known to detect judgmental differences as a function of a description's abstraction level (cf. Lee & Kasoff, 1992; Maass et al., 1989; Semin & Fiedler, 1988, 1992). We predicted that abstract narratives (prompted by questions with state verbs), when compared with concrete narratives, would lead participants to construe a recalled social event (a) as more likely to recur in the future, (b) as having lasted longer, (c) as having represented a more stable relationship, and (d) as having been less influenced by situational factors.

The above predictions about how a person's representation of an event will change on a number of dimensions as a function of the verb type used in question formulation bear a relation to research on question–answer situations by Loftus and her colleagues (e.g., Loftus, 1975, 1977, 1979; Loftus, Miller, & Burns, 1978; Tousignant, Hall, & Loftus, 1986). This work has addressed the influence of how questions are framed on immediate and delayed recall. One such framing strategy is the use of leading questions. These types of questions introduce new information that the interviewee (witness) did not previously possess. Another strategy, the use of misleading questions, involves the introduction of false information. This strategy can serve a number of purposes, from questioning the witness's credibility to disorienting him or her. The introduction of such information after an event has been shown to modify the original recollection of the event (e.g., Christiaansen, Sweeny, & Ochalek, 1983; Read & Bruce, 1984; Smith & Ellsworth, 1987; Weinberg, Wadsworth, & Baron, 1983; Yuille, 1980). Either of the two framing strategies can be introduced by the modification of simple grammatical and semantic elements in the structure of the question. An example is the difference between using a definite article ("Did you see *the* broken headlight?") and an indefinite article ("Did you see *a* broken headlight?", Loftus & Zanni, 1975). Another classic example is the use of different verbs with different speed implications (*smash, hit, collide, bump,* etc.) in questions about a car accident (Loftus & Palmer, 1974). One of the possible social mechanisms contributing to these effects is the tacit expectation that what the questioner is saying is true (Vosniadou, 1982), a mechanism that can also be derived from the Grician maxim of quality (Grice, 1975). As Smith and Ellsworth (1987) have shown, the degree to which the questioner is regarded as an expert affects the influence of misleading questions. However, as Schwarz (1994) has noted, research on misleading questions has been limited to situations in which the questioner was assumed to be a cooperative communicator.

We addressed two issues in Study 1. The first is whether perceivers' representations of events are modified as a function of the verb type used in question formulation. The predictions that we tested relate to the attributional dimensions of event recurrence, event duration, event causation, and relationship stability detailed earlier. The second issue we addressed, which emerges from the first, pertains to how perceivers think their answers will impact a third party. Thus, although respondents' representations of an event may not be modified by the manipulation of verb type in question formulation, respondents may well be aware of the impact of their narrative on third parties. To test the possibility that people differentiate between their own representation of an event and the reception of the narrative from the perspective of another person, we asked participants also to assess the implications of their answers on third parties, again using the same dependent variables.

### *Method*

*Overview.* The resulting design was a two-variable between-subjects design in which verb type (action vs. state) and valence (positive vs. negative) were controlled for.

*Participants.* Forty students from Free University Amsterdam (18 men and 22 women) participated in this experiment on a paid voluntary basis.

*Procedure and design.* Participants were received in groups of 10. Each received a booklet that contained the instructions as well as questions designed to assess the dependent variables. The instructions first informed participants that they were taking part in a study about how people remember events they have experienced. Participants then read that they were expected to describe events or incidents as clearly as possible so that somebody who had not witnessed the event and who knew nothing about the protagonists in the event, would be able to understand them.[1] Booklets differed according to the conditions to which they corresponded.

We manipulated valence by verb choice: for instance, *trust* (positive) versus *distrust* (negative). The verb type used to form the question was controlled for in a manner that allowed the maximization of the semantic and event-based overlap between questions with action verbs and those with state verbs. Thus, participants who were given a state verb to recall an event were provided with a number of alternative actions that could have ensued from the state that they recalled, but they had the option of inserting their own, more appropriate action verb if none of the actions listed in the questionnaire was appropriate, and vice versa for participants who heard the action verb. (The Appendix provides a list

[1] Two participants did not provide a full description and were therefore omitted from all analyses reported below.

of all the action and state verbs used to elicit the event narratives in this study.)

This is best illustrated with one specific example of the instructions. In this case, the valence is positive and the verb type is action:

> Please think about a specific occasion when you *admired* somebody. Try to remember as precisely as possible how this event unfolded.
>
> Now, try to indicate which behaviors occurred during this event. If there are any behaviors that occurred during this event that you do not find in the list below, then please insert them.
>
> | | |
> |---|---|
> | To listen | yes/no |
> | To imitate | yes/no |
> | To defend | yes/no |
> | To collaborate | yes/no |
> | To compliment | yes/no |
>
> etc.

Participants were then asked to select from the behaviors that had occurred on the particular occasion the one that was the most salient and were asked to describe the situation in as much detail as possible so that a nonparticipant would understand why they "had ____ the other person." Participants were to insert the appropriate verb into the blank.

In the study design, verb type (action vs. state) was a between-subjects variable. Further, verb valence (positive vs. negative) was controlled for as a within-subject variable. There were 20 possible prompts, of which 10 were positive action–state combinations and 10 were negative action–state combinations. This resulted in a two-variable design, with verb type as a between-subjects variable and valence as a within-subjects variable.

After providing the event description, participants were asked a series of questions designed to tap (a) event causation, or the degree to which the described event was initiated (or caused) by either the question subject or the question object (1 = *not at all;* 7 = *entirely*); (b) likelihood of event recurrence (1 = *low;* 7 = *high*); (c) stability of relationship, or the degree to which the relationship between the two protagonists (person in the subject position and person in the object position) was stable (1 = *stable;* 7 = *unstable*); (d) event duration, or how long the event was perceived to have lasted (1 = *short;* 7 = *long*); and (e) external factors, or the extent to which the event was due to the influence of outside factors (1 = *not at all;* 7 = *entirely*).

Thereafter, participants handed in the sheet with the first set of closed-ended answers and retained the narratives that they had generated. After 15 min, they were asked the same questions again. This time, however, they had to answer them as they thought somebody who had not experienced the described event would answer after having read the narrative. The questions were preceded by instructions informing participants that we were now interested in how an independent third party (person who previously knew nothing about the event) would judge their narratives using the same scales participants had used. Participants were told to read what they had written down carefully and then fill out the scales from the perspective of the other person.

*Coding of open-ended answers.* The answers were content analyzed with respect to the types of predicates participants used in their answers and with respect to the source of causal origin, or event instigator (self vs. other). The reliability of the coding was undertaken by two independent coders who were blind to the conditions. The coding scheme was as follows. Answers to action verb questions were coded as subject-focused explanations when the grammatical subject of the action verb question was (a) in the grammatical subject position in action verb answers and (b) in the grammatical object position in state verb answers. In contrast, object-focused explanations were those answers that mentioned the question object for action verb questions (a) in the subject position in action verb answers and (b) in the object position in state verb answers. Reverse coding was applied for questions with state verbs. In the case of adjectives, the coding was dependent on whether the adjective was used to modify the sentence subject or the sentence object. The different predicates used by respondents in their answers were coded according to the linguistic category model (cf. Semin & Fiedler, 1988, 1991, 1992), which distinguishes between four verb categories and an adjective category.

In addition, we computed the degree to which each narrative contained abstract or concrete predicates with a simple monotonic weighting scheme: We used 1, 2, 3, and 4 to weigh the frequency of the four respective linguistic categories and divided by the number of predicates used.[2] The resulting score is akin to an ordinal scale measure indicating the degree of abstraction involved in language use.

The overall intercoder reliability was 95%. This is comparable to earlier reliability coefficients obtained across different language communities (e.g., Fiedler, Semin, & Bolton, 1989; Maass et al., 1989; Semin & Fiedler, 1989; Semin, Rubini, & Fiedler, 1995).

## *Results*

*Level of abstraction and focus of explanation.* The first analysis of variance (ANOVA) examined whether the predicted difference in abstraction was obtained. The variables were verb type (between subjects) and valence (within subject). The expected verb type main effect was the only significant effect, $F(1, 35) = 19.43$, $p < .001$. Descriptions generated by a state verb question were more abstract ($M = 2.87$; $SD = .38$) than descriptions generated by an action verb question ($M = 2.38$; $SD = .31$).

In a second ANOVA, ascription of causal origin (subject vs. object) in the event descriptions was introduced as a within-subject variable, with verb type and valence as the between-subjects variables. The dependent variable was the arcsine transformed proportion of mention of the question subject and question object in the causal origin position of sentences used in the event descriptions. The expected interaction between causal origin and verb type was significant, $F(1, 35) = 30.28$, $p < .01$; the same value for nontransformed proportions ($M_p$), $F(1, 35) = 34.87$, $p < .01$. Indeed, a simple means comparison revealed that all means were in the expected direction. When the question was formulated with an action verb, the likelihood of the question sentence subject being in the causal origin of the answers was higher ($M_p = .56$; $SD = .18$) than the question sentence object ($M_p = .38$; $SD = .18$, $p < .05$). With state verb questions the reverse trend was observed. The likelihood of the question sentence subject being in the causal origin position of answers was lower ($M_p = .20$; $SD = .17$) than the question sentence object ($M_p = .69$; $SD = .22$; $p < .01$).

*Attributional judgments.* We examined the outcome of the attributional judgments in an ANOVA and a multivariate analysis of variance (MANOVA). Both used verb type and valence as between-subjects and within-subject variables, respectively, and introduced reference as a further within-subject variable. The reference variable had two levels, self and third party, and captured the judgmental reference from which the attributional

[2] We combined interpretive action verbs and state verbs into the second category, because previous research (e.g., Semin & Fiedler, 1991; Semin & Marsman, 1994) has suggested that, although semantically different, the inferential properties of these two categories do not differ from each other. Both were given a weighting of 2.

questions were answered. The ANOVA used the two event causation measures as within-subject variables. The MANOVA used the four attributional dimensions as the repeated measures (i.e., event duration, likelihood of event recurrence, stability of relationship, and influence of external factors). Neither of the analyses yielded any significant effects due to verb type or any higher order interactions with verb type.

Finally, no systematic relationships were found through a correlational investigation of the relationship between the abstraction level of the narratives and the four attributional dimension variables or the perceived causal originators of the event and the frequency of subject or object references.

### *Discussion*

We obtained three sets of findings. The first was based on the analyses of the written event descriptions. These analyses showed that the type of verb by which the answer was channeled had a systematic influence on what people wrote. In line with previous work on the QAP (Semin et al., 1995) we found that (a) action verbs cued in the question sentence subject as the originator of the recalled event and (b) state verbs cued in the question sentence object as the originator of the described event. The results indicate that these effects are systematic and generalizable beyond the range of action and state verbs that were used in this study and consolidate the stability of this finding (see also De Poot & Semin, 1995). Furthermore, an analysis of the types of predicates used in such descriptions showed that when questions about past events were formulated with verbs of state, the answers contained significantly more abstract predicates (i.e., adjectives, verbs of state) than when questions were formulated with verbs of action. It is important to note in this connection that verb valence did not play a role in this or any of the other hypotheses under consideration.

The final item on the research agenda of Study 1 was to address whether the verb type used in the question also influences the cognitive representation of the event. This was assessed on a number of attributional dimensions known to detect judgmental differences as a function of a description's abstraction level (cf. Lee & Kasoff, 1992; Maass et al., 1989; Semin & Fiedler, 1988). We predicted that abstract narratives (prompted by questions with state verbs), when compared with concrete narratives, would lead to a construal of the recalled social event (a) to be more likely to recur in the future, (b) to have lasted longer, (c) to represent a more stable relationship, and (d) to be less influenced by situational factors. These predictions found no support. We also found no support for the prediction that participants' perception of who initiated the event would be influenced by the verb type used to generate the narrative. Finally, we found no evidence that the respondents perceived any systematic differences with regard to third parties' interpretation of their narratives on any of the dependent variables.

Despite the fact that the verb type in the questions systematically influenced the predicate use in the answers, it had no impact on how events were reconstructed by participants. This may be due to the possibility that a temporal delay is necessary for such reconstruction effects to be manifested—a possibility that may be worth further investigation. The fact is that question–answer situations occur very frequently within a single temporal slice. Undoubtedly, the temporal delay issue is important in a variety of contexts, as, for example, in the case of eyewitnesses (e.g., Loftus, 1979) who are asked to perform on more than one occasion. However, there are numerous circumstances in which the entire question–answer process has significance within one temporal slice and is the first and last performance.

We had a paradox. We had failed to find any judgmental differences for participants whose narratives displayed systematic differences as far as the linguistic analyses of their narratives were concerned. These results raised two important questions, both of which had critical implications. The first question was, Were we using a very sophisticated analytic device that was highly sensitive to barely perceptible or negligible differences with no psychological consequences? If this were the case, then a range of other phenomena investigated with similar analytic devices would also have questionable psychological implications, one example being the linguistic intergroup bias (e.g., Maass et al., 1989). The second question that arises is the following: If the observed differences in the narratives are real, then do others judge the narratives differently as a function of the condition under which they have been produced? If this is the case, then the QAP has more serious implications than one may have originally assumed: One may be able to manipulate respondents' answers by judicious verb choices in the formulation of questions without their being aware of the implications that such a manipulation has for their answers.

We therefore decided to investigate whether our linguistic analyses were detecting perceptible differences or whether these differences were indeed negligible. Consequently, we had to find out whether the particular narratives had any systematic effect on people who read these messages. The question under investigation was, Do readers of the narratives come to different conclusions than the producers of these narratives? Was there an asymmetry between readers' and producers' judgments of one and the same event? For this purpose, we used the answers from Study 1 and posed the same closed-ended questions, designed to measure the dependent variables, to a set of participants to investigate whether the systematic and significant differences that we noted in our analyses of the open-ended answers had an impact on their perceptions of how the events were construed. Thus, in a sense, the second experiment we designed served the further purpose of investigating whether our systematic, or objective, analyses of the descriptions (based on the linguistic category model; Semin & Fiedler, 1991) had an impact on the perceptions of uninvolved third parties. In Study 2, we simply used the descriptions that had been elicited in Study 1.

## Study 2

Our objective was to investigate whether these narratives had exerted a systematic influence on the answers that the third parties generated and therefore on the way third parties had construed the events. Moreover, it was critical to compare the narrative producers' projected third-party judgments with those of actual third parties: If we were to confirm a discrepancy empirically, then we would have the ingredients for the so-called self-fulfilling prophecy recipe. For example, an interviewer asks a particular question and words it in a manner that puts the

respondent in the causal origin of the event in the narrative. The respondent is not the causal originator of the event and is unaware that the narrative he or she subsequently produces actually provides implicit, if not objective, evidence to the contrary. The listener forms a clear opinion on the basis of this answer and further probes into the event with directed questions that are subtle but have direct implications about how the narrative answer is structured. The conclusion, therefore, is guaranteed by the verb type used in forming the question. Because such a process relies on a mismatch between an interviewee's perception of what he or she has said or implied and the perception of a third party, we conducted the study detailed below. In Study 2, we matched each pair of event narratives that had been generated by respondents from Study 1 with three third-party participants, who were asked to read the two narratives. The third-party participants then were asked to answer the same attributional questions we had used in Study 1. These consisted of the four attributional judgment items and the two variables measuring perceived origin of cause. The design of the experiment was identical to that of Study 1. It consisted of two variables, verb type (a between-subjects variable) and valence (a within-subject variable). By using the same six dependent variables from the first experiment we were able to introduce a further variable, reference, that allowed the comparison between the hypothetical third-party judgments from the producers of the narratives and those given by actual third parties (Study 2).

## Method

*Participants.* A total of 117 students from Free University Amsterdam (55 men and 62 women) took part in this study. They participated on a voluntary basis.

*Design and procedure.* Participants in Study 1 had generated 78 narratives, 2 per participant. Each third-party participant in Study 2 received a pair of narratives generated by one of the participants from Study 1 to judge. In this study, we randomly assigned third-party participants, in groups of three, to read a pair of narratives generated in Study 1. Note that the participants in this study did not receive the questions that had led to the production of the narratives.[3] The design was identical to that of Study 1, namely, that verb type was a between-subjects variable and valence a within-subject variable. Additionally, a further set of analyses were conducted with the added variable reference (narrator perception vs. third-party judgment) in a second set of analyses, which compared the perceptions of narrators regarding third-party judgments of their narratives with the actual judgments of third parties.

*Dependent variables.* The six dependent variables were worded identically to those used in Study 1 and matched those used in Study 1.

## Results

We conducted two sets of independent statistical analyses. The first was an analysis of the participants recruited for Study 2. The second was a comparison between the third-party judgments of the participants who had generated the stimulus material for this study and the judgments produced by the participants who acted as the actual third parties.

*Third-party analyses.* The first ANOVA analyzed the degree to which the causal origin of the narrated event was perceived to be ascribed to the sentence subject or sentence object (causal origin, a within-subject variable) as a function of verb type (action vs. state, a between-subjects variable). We obtained the expected interaction effect between verb type and causal origin, $F(1, 115) = 12.78$, $p < .01$, along with a main effect for verb type, $F(1, 115) = 15.04$, $p < .01$. If the narratives that were being judged had been generated with an action verb prompt, then third-party participants made a stronger inference about the sentence subject ($M = 5.26$; $SD = 1.26$) being the causal originators of the event than the sentence object ($M = 4.96$; $SD = 0.92$), a difference that showed a trend ($p < .10$). In the case of narratives generated with verbs of state, the reverse effect was observed, namely, that question sentence object was judged more strongly to be the causal origin ($M = 6.02$; $SD = 1.04$) than was the sentence subject ($M = 5.11$; $SD = 1.14$). This difference is significant ($p < .01$). The main effect suggests that the questions with state verbs are perceived to give rise to more causal origin inferences ($M = 5.57$; $SD = 0.65$) than are questions with action verbs ($M = 5.08$; $SD = .69$).

A correlational comparison between the objective analysis of the narratives regarding sentence subject versus sentence object causation analyses with the judgments of the third parties yielded support for the contention that third parties' inferences are mediated by the linguistic cues for event causation. The correlation between the linguistic analysis (proportion of object references) and the third-party judgments of subject causation was $-.39$ ($p < .01$), and for object causation it was .48 ($p < .01$).

The second analysis was a MANOVA (Verb Type × Valence) on how the participants of Study 2 viewed the answers generated in Study 1 with the four attributional dimensions as repeated measures. We obtained a significant multivariate main effect for verb type, $F(4, 112) = 34.74$, $p < .01$. The univariate analyses on this variable showed that effects for all four dependent variables were significant, as can be seen in Table 1. All the attributional scales yielded the expected outcomes. Third parties judged that the events depicted by narratives that had been generated by state verb questions had lasted longer, referred to events that were more likely to recur, and involved a relationship between the protagonists that was more stable and was influenced less by external factors than those narratives generated by questions worded with action verbs.

Finally, as can be seen from the last column of Table 1, the different attributional measures are all correlated with the degree of abstraction in the narratives. The more abstract the narrative, the longer the event was judged to have lasted, the more likely it was judged to recur in the future, and the more stable the perceived relation was judged between the protagonists in the narrative, and the less likely the event was judged to be due to unstable external causes.

*Comparisons between third parties and narrators' perceptions of third parties.* Our next set of analyses consisted of the comparisons between the narrators' perceptions of how third parties would judge their descriptions and the actual judgments obtained from third parties (i.e., we tested reference, a between-subjects variable). As described earlier, there were three readers per narrative. We pooled the answers of these three readers on

[3] A replication of this study that included the questions produced precisely the same results as those reported here. Thus, question availability does not influence third-party judgments in any systematic manner.

Table 1
*Univariate Effects for the Attributional Dimensions as a Function of Verb Type and Judgmental Dimension*

| Attributional dimension | Action verb *M* | Action verb *SD* | State verb *M* | State verb *SD* | *F*(1, 115) | Level of abstraction *n* |
|---|---|---|---|---|---|---|
| Event duration | 2.88 | 1.10 | 5.13 | 1.06 | 128.15** | .38** |
| Event recurrence | 3.84 | 1.05 | 5.30 | 1.04 | 52.12** | .33** |
| Stability of relationship | 3.41 | 1.36 | 4.65 | 1.58 | 17.70** | .37** |
| Influence of external factors | 5.54 | 1.22 | 4.03 | 1.11 | 47.63** | −.30* |

*Note.* High values indicate increased applicability of relevant dimension.
* $p < .05$. ** $p < .01$.

all the dependent variables before proceeding with the analyses. We first analyzed causal origin in a three-way ANOVA, using reference, causal origin (subject vs. object), and verb type (action vs. state). Valence was not introduced because it had no impact on any of the earlier analyses. This analysis yielded a significant three-way interaction both in participants as the random factor analysis and in the stimuli as the random factor analysis, $F_1(1, 75) = 4.10$, $p < .05$; $F_2(1, 76) = 5.06$, $p < .05$; $F'(1, 149) = 2.26$, *ns* (cf. Clark, 1973). Causal origin did not have a consistently significant effect over the three analyses aside from the one that used participants as the random factor. We therefore briefly focus on the three-way interaction, which can be seen in Table 2. As can be seen, narrators' judgments are not differentiated and do not differ significantly from each other. The interaction is primarily due to the judgments provided by the participants delivering the third-party judgment.

An analysis of the four attributional dimension judgments delivered a comparable finding. The MANOVA was significant for all three types of *F*s, namely $F_1(4, 71) = 11.56$, $p < .01$; $F_2(4, 73) = 18.12$, $p < .01$; $F'(4, 136) = 7.06$, $p < .01$. Indeed, all univariate effects display the same significant second-order interaction, as can be seen in Table 3. What is important to note about these means is that they do not show any significant differences in the post hoc analyses for the narrators except in the case of the event recurrence dimension. In this case, the pattern is the reverse from the one obtained from the third-party judgments. However, we know that in the case of third-party judgments, this value correlates significantly with the abstraction level of the narratives and that no such relationship is found for the narrators' judgments. One must therefore conclude that there are no systematic inferences made by narrators that are in any manner reflective of the properties of their narratives. In contrast, third-party judgments are highly sensitive to the linguistic properties of the narratives.

Table 2
*Event Causation Judgments as a Function of Verb Type, Reference, and Causal Origin*

| Causal origin | Narrator: Action verb *M* | Narrator: Action verb *SD* | Narrator: State verb *M* | Narrator: State verb *SD* | Third party: Action verb *M* | Third party: Action verb *SD* | Third party: State verb *M* | Third party: State verb *SD* |
|---|---|---|---|---|---|---|---|---|
| Subject | $4.63_a$ | 1.45 | $5.05_a$ | 1.19 | $5.26_a$ | 0.94 | $5.11_a$ | 1.10 |
| Object | $5.70_b$ | 1.21 | $5.78_b$ | 1.08 | $4.96_a$ | 0.78 | $6.02_b$ | 0.75 |

*Note.* Means not sharing a subscript differ significantly from each other ($p < .05$). High scores indicate higher event causation.

## *Discussion and Conclusions*

The results of the final experiment in our series confirm our contention that third parties are highly sensitive to the type of narrative that people produce. Their inferences are strongly influenced by the linguistic properties of these narratives. In contrast, narrators themselves are relatively blind to the systematically different impressions mediated by their narratives. They seem to show no awareness of the differential impact that their answers have on third parties.

The judgments that third parties form are mediated by the linguistic properties of the narratives that they read. The correlational analyses lend further support to this conclusion. They show a high degree of convergence between the objective linguistic analyses of the narratives and third-party judgments. The conclusions drawn from the narratives on the basis of the objective analyses are mirrored in the different judgments that third parties give on the diverse attributional dimensions about (a) how long an event has lasted, (b) how likely it is to recur, (c) how stable the relationship between the protagonists in the narrative is, (d) how much the relationship was due to external factors, and (e) who precipitated the event depicted in the narrative. Thus, for narratives prompted with a state verb, judgments on these attributional dimensions are high, and the event is more likely to be seen as being precipitated by the person in the question object position. If, however, the question verb is an action verb, then the values are low. That is, compared with narratives prompted by state verbs, those narratives prompted by action verbs are judged to represent events that have not lasted as long, that are less likely to recur, and that involve a relationship that is not as stable and is more influenced by external factors. Finally, the event is more likely to be seen as being precipitated by the question subject.

These findings strongly suggest that when action and state verbs are used in questions, their metasemantic properties (Semin & Marsman, 1994), or rather their cognitive properties (Semin, 1995), exercise a strong influence on the production of a narrative. What is quite fascinating is that the persons

Table 3
*Attributional Dimensions as a Function of Verb Type and Judgmental Dimension*

| | Narrator | | | | Third party | | | |
|---|---|---|---|---|---|---|---|---|
| | Action verb | | State verb | | Action verb | | State verb | |
| Attributional dimension | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Event duration | $3.60_b$ | 0.97 | $4.08_b$ | 1.23 | $2.88_a$ | 0.81 | $5.13_c$ | 0.93 |
| Event recurrence | $4.55_b$ | 1.18 | $3.94_a$ | 1.51 | $3.84_a$ | 0.77 | $5.30_c$ | 0.65 |
| Stability of relationship | $4.33_b$ | 1.39 | $4.00_b$ | 1.74 | $3.41_a$ | 1.29 | $4.65_b$ | 1.21 |
| Influence of external factors | $4.26_{b,a}$ | 1.21 | $4.61_b$ | 1.28 | $5.54_c$ | 0.78 | $4.03_a$ | 0.76 |

*Note.* Means not sharing a subscript differ significantly from each other ($p < .05$). High values indicate increased applicability of relevant dimension.

who produce these narratives are insensitive to the subtle but impactful cues they transmit by the way they compose their descriptions. In contrast, if participants are in the role of a third party, as, for example, one who reads these narratives, then they display a remarkable sensitivity to the subtle variations in the linguistic cues. Indeed, this sensitivity is perhaps plausible, given that all third parties can rely on in judging a narrative are these cues. They cling to every word in making an informed inference. These contrasting outcomes, the sensitivity to the properties of a narrative and the lack of sensitivity to or awareness of precisely the same properties as a producer of the narrative, pose an interesting dilemma.

One explanation for the lack of narrator sensitivity is the following. The verb type in the question serves as a specific contextualized request that is implicitly processed. It requires one particular focus on the answer rather than another. Thus, the question "Why did you confide in him" requires an answer that is grounded in the "you" rather than the "him." Alternatively, the question "Why did you trust him?" requires an answer that is primarily grounded in "him." One could argue that the question formulation introduces a conversational context that requires compliance, but tacitly so. Once compliance has been established, the narrator's lack of sensitivity may be due to further factors that amplify this implicit contractual obligation. For the narrator, the event being depicted in a relatively brief space is in itself clearly much richer. It is not surprising that the narrator is unable to be aware of the subtle linguistic differences conveyed by the narrative he or she has provided. The narrator accesses the entire memory of an event, which contains much more than merely the written down narrative. Thus, the narrator's judgments are based not on a brief description reproduced on paper but on a much richer event that is represented in his or her memory. Whatever the subtle differences introduced by the verb type used in the formulation of the question, the narrator is insensitive to them, having accessed a much richer event representation. In contrast, all that third parties have to rely on is an approximately 55-word description of an interpersonal event. This discrepancy in information bases that participants access in making judgments may be at the root of the differences that we have repeatedly noted in the current studies.

Another factor that may contribute to our findings is how recent the event is that the respondent produces. Relatively recent experiences may be more vivid and rich in the respondent's memory. They may therefore be less subject to the modificatory effects of verb type in question formulation. In contrast, past events that are less vivid and rich in memory may be more likely to be subject to language-driven modifications of their representations without the respondent's awareness of such modifications. A further issue that must be investigated further concerns the boundary conditions to the phenomenon reported here. The participants in these studies were cooperative ones. To what extent would one find the same lack of awareness of the implications of one's responses or narratives under adversarial question–answer conditions (cf. Schwarz, 1994)? These issues warrant further investigation.

## General Conclusions

There is no doubt that the discrepancy between narrators' and third-parties' perceptions of an event can have grave consequences, a subject to which we return before closing. First we briefly consider the implications of the outcomes of our studies for the communication of meaning. Generally, it is assumed that a written message or narrative consists of words that, in connection with larger contexts (linguistic or nonlinguistic), establish relationships (e.g., referential, descriptive, denotative, extensional, and factual) to extralinguistic entities, events, or states of affairs. The general assumption, stated in a very simplified manner, is that communication of meaning is highly sensitive to the *content* of what one has written down or said. Undoubtedly, this is true. What is emerging in the context of our experiments with the QAP, however, is that there are metasemantic features of narratives that are independent of any particular content.

If one considers that the participants who generated the narratives were writing down events that were unique to them and that it is highly unlikely that any two events were described with the same words, then it is remarkable that our third parties come up with systematic and reliable differences as a function of the verb type that generated the narrative. It is not the surface semantics that has driven these systematic inferences; it is in fact properties of interpersonal language that go beyond the surface semantic level and have been identified by the linguistic category model (Semin & Fiedler, 1988, 1991, 1992; Semin & Marsman, 1994). These metasemantic properties, which cut

across narrative domains, have a strong and systematic influence on a number of central inferences that third parties draw, such as time, causation, and qualities of the interpersonal relationship, such as its stability. Thus, one of the more general conclusions that the research done thus far with the QAP suggests, is that researchers should be more attentive to the metasemantic properties of communication. Not only do these metasemantic properties play an important role in influencing answers when they are systematically used in question formulation, but the manner in which they systematically convey messages to third parties is of critical importance. As we mentioned, these metasemantic cues contribute significantly to the discrepancy between narrator and third-party perceptions of an event, a discrepancy that can have grave consequences. There are numerous dangers associated with this discrepancy. The most obvious is the classic issue of the self-fulfilling prophecy. The QAP suggests a plausible answer to how such prophecies can occur.

The important point is that the possibility of self-fulfilling prophecies is contingent upon the structural properties of the interview situation or the question–answer situation. Obviously, there are circumstances under which a clear manipulation of verb type itself may not be possible (e.g., those occasions on which it is difficult to use state verbs; cf. Cattellani et al., 1996). Nevertheless, it is possible to use such linguistic tools strategically. For instance, consider a situation in which a vice squad officer is interviewing a rape victim. The officer wants to know how the critical event unfolded and wants to probe with an action verb. The officer has at least two options: He can ask the victim whether *she* danced with the perpetrator or whether the *perpetrator* danced with her. Given the fact that the two did dance at the party, the answer must be yes in both cases. However, if the victim is in the sentence subject position in the question, then she is more likely to be perceived as the causal origin of the event. Yet if the victim is in the sentence object position, then it is more likely that the officer will form the opinion that she is the victim. An innocently chosen question at an early stage of the interview may be sufficient for the officer to form an incorrect opinion about innocence or lack thereof. Such an opinion is then likely to shape the proceedings of the interview by shaping the manner of questions that the officer poses, and the victim may then fall prey to the pitfalls of those questions. Injustice might be done because an audience of judges will agree with the officer. Thus, the victim might regret not noticing how a question is worded and not realizing what our research has shown.

The discrepancy between third parties' sensitivity to the properties of a narrative and narrators' lack of sensitivity to or awareness of precisely the same properties can be seen as giving rise to another potentially fascinating and paradoxical hypothesis. This paradox becomes apparent when one compares a person who truthfully reports an event with a person who is lying. The former accesses the entire memory of an event, which is richer than what his or her answers convey. As we know, such a person may be unaware of the implications of either the question formulation or the trap that is laid by such questions, questions that channel the shape of the answers. The liar has no such memory base because no event has actually taken place. The liar must construct answers as he or she goes along. The liar can thus be expected to be much more sensitive to the implications that are intended by the questions as well as the inferences that can be drawn from the answers. Thus, we have the potentially paradoxical situation in which a liar is likely to be less prone to self-fulfilling biases than a person who is truthful. This paradoxical prediction is one of the types of unexpected hypotheses that the QAP generates for possible empirical investigation.

Thus, the QAP offers a potential framework that permits researchers to establish why people ask questions that are formulated in a particular manner. This framework is made possible by a clearer understanding of the ways interpersonal language can be used as a tool. The current findings suggest that one could, in principle, analyze natural conversations involving an interview with a view to both finding out the motives of the interviewer and determining the predicament of the unsuspecting interviewee. The warning issued in the title, namely that one might regret not noticing how a question is worded, is something that innocent victims should heed. Never answer a question before considering what your answer may imply.

## References


Abelson, R. P., & Kanouse, D. E. (1966). Subjective acceptance of verbal generalizations. In S. Feldman (Ed.), *Cognitive consistency: Motivational antecedents and behavioral consequences* (pp. 171–197). New York: Academic Press.

Au, T. K. (1986). A verb is worth a thousand words: The causes and consequences of interpersonal events implicit in language. *Journal of Memory and Language, 25,* 104–122.

Brown, R., & Fish, D. (1983). The psychological causality implicit in language. *Cognition, 14,* 233–274.

Cattellani, P., Pajardi, D., Galardi, A., & Semin, G. R. (1996). *Implicit attributions in question-answer exchanges: Analyzing language in court.* Manuscript submitted for publication.

Christiaansen, R. E., Sweeny, J. D., & Ochalek, K. (1983). Influencing eyewitness description. *Law and Human Behavior, 7,* 59–65.

Clark, H. H. (1973). The language as fixed-effect-fallacy: A critique of language statistics in psychological research. *Journal of Verbal Learning and Verbal Behavior, 27,* 447–465.

De Poot, J. C., & Semin, G. R. (1995). Pick your verbs with care when you formulate a question! *Journal of Language and Social Psychology, 14,* 351–368.

Fiedler K., & Semin, G. R. (1988). On the causal information conveyed by different interpersonal verbs: The role of implicit sentence context. *Social Cognition, 6,* 21–39.

Fiedler, K., Semin, G. R., & Bolten, S. (1989). Language use and reification of social information: Top-down and bottom-up processing in person cognition. *European Journal of Social Psychology, 19,* 271–295.

Garvey, C., & Caramazza, A. (1974). Implicit causality in verbs. *Linguistic Inquiry, 5,* 459–464.

Garvey, C., Caramazza, A., & Yates, J. (1976). Factors influencing assignment of noun antecedents. *Cognition, 3,* 227–243.

Grice, H. P. (1975). Logic and conversation. In P. Cole & J. Morgan (Eds.), *Syntax and semantics* (pp. 41–58). New York: Academic Press.

Hoffman, C., & Tchir, M. A. (1990). Interpersonal verbs and dispositional adjectives: The psychology of causality embodied in language. *Journal of Personality and Social Psychology, 58,* 765–778.

Lee, J. Y., & Kasoff, J. (1992). Interpersonal verbs and interpersonal experiences. *Journal of Social Psychology, 132,* 731–740.

Loftus, E. F. (1975). Leading questions and the eyewitness report. *Cognitive Psychology, 8,* 560–570.

Loftus, E. F. (1977). Shifting human color memory. *Memory and Cognition, 5,* 696–699.

Loftus, E. F. (1979). *Eyewitness testimony.* Cambridge, MA: Harvard University Press.

Loftus, E. F., Miller, D. G., & Burns, H. J. (1978). Semantic integration of verbal information into a visual memory. *Journal of Experimental Psychology, 4,* 19–31.

Loftus, E. F., & Palmer, J. C. (1974). Reconstruction of automobile destruction: An example of the interaction between language and memory. *Journal of Verbal Learning and Verbal Behavior, 13,* 585–589.

Loftus, E. F., & Zanni, G. (1975). Eyewitness testimony: The influence of the wording of a question. *Bulletin of the Psychonomic Society, 5,* 86–88.

Maass, A., Salvi, D., Arcuri, L., & Semin, G. R. (1989). Language use in intergroup contexts: The linguistic intergroup bias. *Journal of Personality and Social Psychology, 57,* 981–994.

Read, J. D., & Bruce, D. (1984). On the eternal validity of questioning effects in eyewitness testimony. *International Review of Applied Psychology, 33,* 33–49.

Schwarz, N. (1994). Judgment in a social context: Biases, shortcomings, and the logic of conversation. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 26, pp. 123–162). San Diego, CA: Academic Press.

Semin, G. R. (1995). Interfacing language and social cognition. *Journal of Language and Social Psychology, 14,* 182–194.

Semin, G. R., & Fiedler, K. (1988). The cognitive functions of linguistic categories in describing persons: Social cognition and language. *Journal of Personality and Social Psychology, 54,* 558–567.

Semin, G. R., & Fiedler, K. (1989). Relocating attributional phenomena within a language-cognition interface: The case of actors' and observers' perspectives. *European Journal of Social Psychology, 19,* 491–508

Semin, G. R., & Fiedler, K. (1991). The linguistic category model: Its bases, applications and range. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 2, pp. 1–30). Chichester, England: Wiley.

Semin, G. R., & Fiedler, K. (1992). The inferential properties of interpersonal verbs. In G. R. Semin & K. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 58–78). London: Sage.

Semin, G. R., & Marsman, G. (1994). Multiple inference inviting properties of interpersonal verbs: Event instigation, dispositional inference and implicit causality. *Journal of Personality and Social Psychology, 67,* 836–849.

Semin, G. R., Rubini, M., & Fiedler, K. (1995). The answer is in the question: The effect of verb causality upon locus of explanation. *Personality and Social Psychology Bulletin, 21,* 834–842.

Smith, V. L., & Ellsworth, P. C. (1987). The social psychology of eyewitness accuracy: Misleading questions and communicator expertise. *Journal of Applied Psychology, 72,* 294–300.

Tousignant, J. P., Hall, D., & Loftus, E. F. (1986). Discrepancy detection and vulnerability to misleading post-event information. *Memory and Cognition, 14,* 329–338.

Vosniadou, S. (1982). Drawing inferences from semantically positive and negative implicative predicates. *Journal of Psycholinguistic Research, 11,* 77–93.

Weinberg, H. I., Wadsworth, J., & Baron, R. S. (1983). Demand and the impact of leading questions on eyewitness testimony. *Memory and Cognition, 11,* 101–104.

Yuille, J. C. (1980). A critical examination of the psychological and practical implications of eyewitness research. *Law and Human Behavior, 4,* 335–345.

## Appendix

### Verbs Used to Elicit Event Narratives With Approximate English Translations

#### State verbs (positive)

*bewonderen* (to admire)
*graag mogen* (to like)
*vertrouwen* (to trust)
*bekommeren om* (to care for or be concerned about)
*verlangen naar* (to desire)

#### State verbs (negative)

*een hekel hebben aan* (to dislike)
*wantrouwen* (to distrust)
*bang zijn voor* (to fear)
*benijden* (to envy)
*minachten* (to despise)

#### Action verbs (positive)

*helpen* (to help)
*toevertrouwen aan* (to confide in)
*verdedigen* (to defend)
*verzorgen* (to look after)
*uitnodigen* (to invite)

#### Action verbs (negative)

*bekritiseren* (to criticize)
*ruzie maken met* (to quarrel)
*liegen tegen* (to lie to)
*ontlopen* (to avoid)
*bespotten* (to deride)

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